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Geomagnetic Pulsation Amplitude and Spectrum Variations Accompanying the Ionospheric Heating by High-Power Radio waves from the Sura Facility

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Abstract

© 2014, Springer Science+Business Media New York. Aperiodic and quasiperiodic variations in the geomagnetic pulsation amplitude in a range of periods from 40 to 1000 s, which accompany the quasicontinuous and periodic impact on the ionospheric plasma by high-power radio waves from the SURA facility near Nizhny Novgorod (Russia) were recorded near Kharkov (Ukraine) using a magnetometer–fluxmeter. The main parameters of aperiodic and quasiperiodic disturbances of the geomagnetic field are determined. The mechanisms for generation and propagation of detected disturbances are discussed.

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